



BSI Standards Publication

Aerospace series – Cables, electric, general purpose, with conductors in aluminium or copper-clad aluminium

Part 001: Technical specification

National foreword

This British Standard is the UK implementation of EN 4681-001:2019. It supersedes BS EN 4681-001:2017, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

**Aerospace series - Cables, electric, general purpose, with
conductors in aluminium or copper-clad aluminium - Part
001: Technical specification**

Série aérospatiale - Câbles électriques, d'usage général,
avec conducteurs en aluminium ou en aluminium
chemisé cuivre - Partie 001 : Spécification technique

Luft- und Raumfahrt - Elektrische Leitungen, zur
allgemeinen Verwendung, mit Leitern aus
kupferbeschichtetem Aluminium - Teil 001:
Technische Lieferbedingungen

This European Standard was approved by CEN on 13 October 2019.

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European foreword

This document (EN 4681-001:2019) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2020, and conflicting national standards shall be withdrawn at the latest by June 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 4681-001:2017.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies the characteristics, test methods, qualification and acceptance conditions of single and multicore electric cables for general purpose with conductors in aluminium or copper-clad aluminium, intended for installation in aircraft electrical systems.

The insulation of these cables is designed to withstand aircraft voltages at a frequency not exceeding 2 000 Hz. Unless specified by individual product standards the maximum demonstrated voltage of rating of these cables is ac 115 V rms phase to neutral and 200 V rms phase to phase and 28 Vdc.

They are divided into types, the characteristics of which are given in the product standards. Unless otherwise specified in the product standard, the tests defined in this standard apply.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 3475-100 (all parts), *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 100: General*

EN 3719, *Aerospace series — Aluminium or aluminium alloy conductors for electrical cables — Product standard*

EN 3838, *Aerospace series — Requirements and tests on user-applied markings on aircraft electrical cables*

EN 4651, *Aerospace series — Copper-clad aluminium alloy conductors for electrical cables — Product standard*

EN 4681-002, *Aerospace series — Cables, electric, general purpose, with conductors in aluminium or copper-clad aluminium — Part 002: General*

EN 9133, *Aerospace series — Quality Management Systems — Qualification Procedure for Aerospace Standard Products*

ISO 2574, *Aircraft — Electrical cables — Identification marking*

TR 4648, *Aerospace series — Cable, electrical — Re-qualification following changes in design, material or manufacturing process* ¹⁾

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